

## Milestone 2 Report

Name	ID
Adel Mahmoud Mohamed Abdelrahman	20010769
Mohamed Hassan Sadek Abdelhamid	20011539
Mohamed Hassan Yousef Hassan Eltobgy	20011544
Mohamed Raffeeek Mohamed El-Sayed	20011574
Mahmoud Attia Mohamed Abdelaziz Zian	20011810
Mahmoud Ali Ahmed Ali Ghallab	20011811

## Requirements:

<b>Home page requirement</b>
<b>Function:</b> User Homepage
<b>Description:</b> Provide a user-friendly and efficient homepage experience for customers, facilitating easy navigation among pages, user friendly search bar.
<b>Inputs:</b> Customer interaction with the website (clicks and searches).
<b>Source:</b> User, Database, System
<b>Outputs:</b>  1) Navigation bar includes: <ul style="list-style-type: none"><li>• cart and wishlist information in the top bar(status, counter).</li><li>• brand name.</li><li>• Search bar.</li><li>• username</li><li>• pages options</li></ul> 2. Navigation to the selected page(profile, my cart, wish list, Categories, Orders and products).
<b>Destination:</b> Clicks lead to navigation to the selected page stated in previous row, Also Database and the System
<b>Action:</b> <ul style="list-style-type: none"><li>• Implement a top bar with cart, wishlist, and profile buttons, as well as a search field.</li><li>• Implement dropdown menus for Home and Categories tabs.</li><li>• Navigation to the pages present in navigation bar.</li><li>• Implement responsive home page.</li><li>• Checking if the user admin or not to show the suitable navigation bar and categories.</li></ul>
<b>Requirements:</b> 1. show the suitable navigation bar for each user(customer, admin).

2. Navigation to selected page 3. Clear indication of items added to the cart. 4. Intuitive controls for easy navigation. 5. Effective use of dropdown menus for Home and Categories. 6. Readable and visually appealing design.
<b>Pre-condition:</b> <ul style="list-style-type: none"> <li>• The customer is logged into the website.</li> <li>• Product information is available in the database.</li> </ul>
<b>Post-Condition:</b> <ul style="list-style-type: none"> <li>• The customer can easily navigate through the homepage</li> <li>• Access detailed product information</li> <li>• Manage their cart and wishlist effectively.</li> </ul>
<b>Side effects:</b> Clicks to navigate to any page may require some data to be retrieved from the database or updates to the data base.

Product Catalog (Customer Requirement)
<b>Function:</b> Allow the customer to be able to browse through the products catalog and discover all products
<b>Description:</b> <ul style="list-style-type: none"> <li>• Customers should be able to browse the product catalog effortlessly on the main page.</li> <li>• Access to the catalog is via a button labeled "View All Products."</li> <li>• Product listings are displayed as cards, with each card containing: <ul style="list-style-type: none"> <li>◦ Product name.</li> <li>◦ Price.</li> <li>◦ Crossed-out old price and highlighted new price if a discount is offered.</li> <li>◦ Product rating (out of 5 stars).</li> </ul> </li> <li>• <b>Each product card includes two buttons:</b> <ul style="list-style-type: none"> <li>◦ "Add to Cart" to add the product to the shopping cart.</li> <li>◦ "Add to Wishlist" to add the product to the wishlist</li> </ul> </li> </ul>
<b>Inputs:</b> Click on "View All Products" button.
<b>Source:</b> The Product catalog page.
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Display the product catalog with all products listed as described above.</li> </ul>
<b>Destination:</b> <ul style="list-style-type: none"> <li>• The product listings are displayed on the customer's screen in the products page.</li> </ul>
<b>Action:</b> <ul style="list-style-type: none"> <li>• On clicking the "View All Products" button, a request is made to retrieve the list of products from the database.</li> <li>• If a customer clicks "Add to Cart," the product is added to their shopping cart.</li> <li>• If a customer clicks "Add to Wishlist," the product is added to their wishlist</li> </ul>
<b>Requirements:</b> user token, a click on the update personal info button.
<b>Pre-condition:</b> The customer has access to the main page..
<b>Post-condition:</b> None.

**Side effects:** if the add to cart button is clicked, the add to cart list is affected and same for the add to wish list button

### Customer/Admin Viewing Product Details

**Function:** The function is to display detailed information about a selected product on a web page.

**Description:**

- This is to facilitate the seamless viewing of a selected product on a dedicated web page within the app.
- The user will be navigated to this page when clicking on the product to view its details from the customer's/admin's products listing.
- This page will present a rich array of information, including:
  - An image.
  - A detailed product description
  - Pricing details
  - Discount (if any),
  - Product rate and reviews (if any)
  - Category
  - Brand
  - Posted Date
  - Availability (In stock with the remaining number/ out of stock)
  - Number of items sold of this product.
- for the customer there will be additional 3 buttons:
  - one for add this product to the cart. (followed by a popup window to notify the user of the result of this action)
  - Another for add to Wishlist. (followed by a popup window to notify the user of the result of this action)
  - A third one for adding a review. (which opens a popup window for adding the review details and this popup window will be implemented in the next milestone)
- The customers reviews will consist of:
  - The review rate viewed as 5 stars and the number of golden stars equals to the rounding of the rate value. the remaining stars are gray.
  - The customer comment.
  - posted date.

**Inputs:** clicking on the product in the products listing.

**Source:** The Customer/Admin products list.

**Outputs:** Generation of a web page dynamically populated with comprehensive details of the selected product as described above.

**Destination:**

- The product details are displayed on the product details page.

**Action:**

- Display a meticulously crafted web page containing:
  - All product details specified above.
- For customer users: Display interactive buttons to seamlessly add the product to their cart, Wishlist, and submit reviews.

**Requires:**

- Access to the product information stored in the database, encompassing details like images, descriptions, prices, and reviews.

- Verification of the user's authentication status to determine whether they hold customer or admin privileges.

**Pre-condition:**

- The user has successfully selected a product from the listings.
- The system has access to the complete and up-to-date product details in the database.
- User authentication is completed successfully, ensuring a secure and authorized session.

**Post-condition:**

- The web page is dynamically generated and displayed promptly with accurate and up-to-date product information.
- For customer users: Cart, Wishlist, and reviews are updated in real-time based on their interactions with the provided buttons.

**Side effects:**

- For customer users:
  - The selected product is seamlessly added to their cart if add to cart was clicked and item wasn't in his cart already.
  - The product is added/removed from their Wishlist for future reference when the Wishlist button is clicked.
  - Ability to submit reviews directly from the product page.
- For admin users: No unintended side effects; the interface remains tailored to informational display without additional interactive functionalities.

## 6: Customer/Admin managing their user account

**Function:** Allow the user to edit his/her personal information.

**Description:**

- Users can change their personal information including first name, last name, phone number , contact phone (for admins only), add shipping addresses (no limit for customer but only one address for admins), remove addresses.
- The Profile menu for the user will contain **the following fields**:
  - user email (can not be changed).
  - first name.
  - last name.
  - phone number.
  - contact phone (for admins only).
  - addresses (only one for admins).
- **There are 3 buttons in the menu**:
  - **Add addresses:**
    - To add more addresses.
  - **X button:**
    - To delete the corresponding address.
  - **Update Personal Info button.**
    - To send data written in the fields to the backend to be stored in the database.

**Inputs:** first name, last name, phone number, contact phone (for admins only) & addresses (only one for admins).

**Source:** The Profile menu.

**Outputs:**

- In case of successful update of data:

<ul style="list-style-type: none"> <li>◦ Show a pop up window indicating success.</li> <li>• In case of failure update of data: <ul style="list-style-type: none"> <li>◦ Show a pop up window indicating failure.</li> </ul> </li> </ul>
<b>Destination:</b> <ul style="list-style-type: none"> <li>• Send data to backend to store it in the database.</li> </ul>
<b>Action:</b> <ul style="list-style-type: none"> <li>• When the profile is first opened a get request containing user token sent to backend to fetch available user data in case of failure of any reason (user not found, database error, ...) a null object is returned</li> <li>• When clicking on update personal info button a post request is sent to backend, the backend validates the token sent and proceeds to update user info in his respective repository (customer and customerAddress repositories or admin repository).</li> <li>• In case of invalid update (user not found in database), return a failure response message to the frontend.</li> </ul>
<b>Requirements:</b> user token, a click on the update personal info button.
<b>Pre-condition:</b> The backend server is up and running, the user has a genuine email address.
<b>Post-condition:</b> None.
<b>Side effects:</b> The user info is added to database on successful update.

Customer managing his shopping cart and placing an order
<b>Function:</b> The function is to provide customers with a user-friendly and efficient shopping cart experience on the E-commerce website.
<b>Description:</b> <ul style="list-style-type: none"> <li>• The system is required to provide customers with a seamless and efficient shopping cart experience on the E-commerce website. This involves facilitating the addition of products to the cart, providing intuitive controls, and presenting comprehensive information for enhanced user satisfaction.</li> <li>• <b>Key Features:</b> <ul style="list-style-type: none"> <li>◦ <b>Add to Cart Functionality:</b> <ul style="list-style-type: none"> <li>▪ A prominently displayed 'Add to Cart' button for each product in the product listings.</li> <li>▪ Default quantity in the cart set to one for each product added.</li> </ul> </li> <li>◦ <b>Cart Icon in Main Menu:</b> <ul style="list-style-type: none"> <li>▪ Inclusion of a visually appealing cart icon in the main menu.</li> </ul> </li> <li>◦ <b>Cart Summary Page:</b> <ul style="list-style-type: none"> <li>▪ Upon clicking the cart icon, the system should direct the user to a dedicated web page.</li> <li>▪ The page should present a detailed summary of items in the cart, including product image, name, description, quantity, and price for each item.</li> </ul> </li> <li>◦ <b>Subtotal Display:</b> <ul style="list-style-type: none"> <li>▪ Display the subtotal for the entire cart prominently on the cart summary page.</li> </ul> </li> <li>◦ <b>Quantity Modification Interface:</b> <ul style="list-style-type: none"> <li>▪ A user-friendly interface allowing modification of the quantity for each product.</li> <li>▪ The interface should include a text box showing the current quantity, an 'Update' button, and the option to input any desired quantity (including zero for removal).</li> </ul> </li> <li>◦ <b>Place Order Functionality:</b> <ul style="list-style-type: none"> <li>▪ Inclusion of a 'Place Order' button to facilitate the purchase of all items in the cart.</li> <li>▪ Upon order placement, the cart should be emptied.</li> </ul> </li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>◦ <b>Order Details Accessibility:</b> <ul style="list-style-type: none"> <li>▪ Accessibility of order details in the 'Orders' section of the customer's account.</li> </ul> </li> </ul>
<p><b>Inputs and source:</b></p> <ul style="list-style-type: none"> <li>• User interaction with the 'Add to Cart' button prominently displayed for each product.</li> <li>• Modification of item quantities through a user-friendly interface.</li> <li>• Clicking the cart icon in the main menu for quick access to the cart summary page.</li> <li>• Input for the desired quantity, including zero, to remove a product.</li> </ul>
<p><b>Outputs and destination:</b></p> <ul style="list-style-type: none"> <li>• Visual indication of a successful addition to the cart (e.g., animation or confirmation message).</li> <li>• Redirecting to a dedicated web page upon clicking the cart icon, presenting a detailed cart summary.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Action:</b> <ul style="list-style-type: none"> <li>◦ <b>Adding Products to Cart:</b> <ul style="list-style-type: none"> <li>▪ Prominently display an 'Add to Cart' button for each product in the product listings.</li> <li>▪ Default quantity in the cart should be one for each product added.</li> </ul> </li> <li>◦ <b>Cart Icon Interaction:</b> <ul style="list-style-type: none"> <li>▪ A visually appealing cart icon in the main menu.</li> <li>▪ Clicking the icon redirects the user to a dedicated web page presenting a detailed cart summary.</li> </ul> </li> <li>◦ <b>Cart Summary Page:</b> <ul style="list-style-type: none"> <li>▪ Display product image, name, description, quantity, and price for each item.</li> <li>▪ User-friendly interface for modifying item quantities with a text box and 'Update' button.</li> <li>▪ Ability to input desired quantity, including zero for removal, with dynamic updates to the subtotal.</li> <li>▪ 'Delete' button for prompt removal of a product.</li> </ul> </li> <li>◦ <b>Place Order:</b> <ul style="list-style-type: none"> <li>▪ A convenient 'Place Order' button to facilitate the purchase of all items in the cart.</li> </ul> </li> </ul> </li> </ul>
<p><b>Requires:</b></p> <ul style="list-style-type: none"> <li>• Access to product information and availability in the database.</li> <li>• Real-time updates for the cart icon quantity and subtotal.</li> </ul>
<p><b>Pre-condition:</b></p> <ul style="list-style-type: none"> <li>• The user is logged in and authenticated.</li> <li>• The system has access to the user's cart preferences and product information.</li> </ul>
<p><b>Post-condition:</b></p> <ul style="list-style-type: none"> <li>• The shopping cart is dynamically updated, reflecting added, removed, or modified products.</li> <li>• The user is seamlessly redirected to the cart summary page, with an up-to-date overview of their selected products.</li> </ul>
<p><b>Side effects:</b></p> <ul style="list-style-type: none"> <li>• <b>Positive Side Effects:</b> <ul style="list-style-type: none"> <li>◦ Enhanced user experience with intuitive controls for managing the shopping cart.</li> <li>◦ Clear visibility of the cart's content and subtotal.</li> <li>◦ Quick access to the cart summary page directly from the main menu.</li> </ul> </li> <li>• <b>Post-Order Side Effects:</b> <ul style="list-style-type: none"> <li>◦ The cart is emptied upon completion of the order.</li> <li>◦ Order details are accessible in the 'Orders' section for future reference.</li> </ul> </li> </ul>

## Customer managing his Wishlist

**Function:** The function is to provide users with the capability to curate and manage a personalized Wishlist on the E-commerce platform.

### Description:

- The system should provide users with the ability to curate a personalized Wishlist on the E-commerce platform, offering a seamless and efficient means to bookmark and manage products of interest. This feature aims to enhance the user's shopping experience by providing freedom in product organization and easy transition to the shopping cart.
- **Key Features:**
  - a. **Wishlist Icon on Product Listings:**
    - Each product listing shall include a distinctive white heart icon.
    - Upon user interaction by clicking the heart icon, it transforms to red, signifying the successful addition of the corresponding product to the user's Wishlist.
  - b. **Wishlist Access via Top Bar:**
    - Clicking the heart icon in the top bar shall redirect the user to a dedicated web page, providing quick access to the Wishlist.
  - c. **Wishlist Overview Page:**
    - The Wishlist web page shall present a comprehensive overview of bookmarked products.
    - Information displayed for each product shall include product image, name, description, and price.
  - d. **Product Removal from Wishlist:**
    - The Wishlist web page shall feature a 'Delete' button, symbolized by a garbage pin icon, allowing users to promptly remove any product from their Wishlist.
  - e. **Add to Cart from Wishlist:**
    - An 'Add to Cart' button, adorned with a cart icon, shall be available on the Wishlist web page.
    - Clicking this button shall enable users to seamlessly transition selected items from the Wishlist to their shopping cart.

### Inputs and source:

- User interaction with the heart icon associated with each product.
- Clicking on the heart icon to add a product to the Wishlist.
- Clicking on the heart icon in the top bar for quick access to the Wishlist.

### Outputs and destination:

- Transformation of the color of heart icon upon successfully adding a product to the Wishlist.
- Redirection to a dedicated web page upon clicking the heart icon in the top bar, displaying an overview of the Wishlist.

### Action:

- **Heart Icon Interaction:**
  - Upon clicking the heart icon, it transforms its color, indicating the successful addition of the associated product to the Wishlist.
- **Access to Wishlist:**
  - Clicking the heart icon in the top bar redirects the user to a dedicated web page providing a comprehensive overview of their Wishlist.
- **Wishlist Interface:**
  - The Wishlist page displays essential details for each product, including image, name, description, and price.
  - Users can manage their selections with the 'Delete' button (garbage pin icon) to promptly remove products from the Wishlist.

<ul style="list-style-type: none"> <li>◦ An 'Add to Cart' button (cart icon) facilitates the seamless transition of desired items from the Wishlist to the shopping cart.</li> </ul>
<b>Requires:</b> <ul style="list-style-type: none"> <li>• Access to the product information and status (added or not added to the Wishlist) stored in the database.</li> <li>• Real-time update mechanism for the counter reflecting the number of products in the Wishlist.</li> </ul>
<b>Pre-condition:</b> <ul style="list-style-type: none"> <li>• The user is logged in and authenticated.</li> <li>• The system has access to the user's Wishlist preferences and product information.</li> </ul>
<b>Post-condition:</b> <ul style="list-style-type: none"> <li>• The Wishlist is dynamically updated, reflecting added or removed products.</li> <li>• The user is seamlessly redirected to the Wishlist page, with an up-to-date overview of their selected products.</li> </ul>
<b>Side effects:</b> <ul style="list-style-type: none"> <li>• <b>Positive Side Effects:</b> <ul style="list-style-type: none"> <li>◦ Enhanced user experience with a streamlined process for curating and managing the Wishlist.</li> <li>◦ Quick access to the Wishlist directly from the top bar for efficient product reference.</li> </ul> </li> <li>• <b>No Negative Side Effects:</b> <ul style="list-style-type: none"> <li>◦ The functionality is designed to be intuitive and user-friendly, minimizing the possibility of unintended consequences.</li> </ul> </li> </ul>

1: (Admin Requirement) Product lists
<b>Function:</b> list products for sale, add products and edit products
<b>Description:</b> <ul style="list-style-type: none"> <li>• listing the products in pages.</li> <li>• Add a new product by providing essential details such as product name, category, price, available quantity, image, and a detailed description.</li> <li>• Edit the details of a listed product, including updating the product information, image, and pricing.</li> </ul>
<b>Inputs and source:</b> <ul style="list-style-type: none"> <li>• Admin interaction with the add product button.</li> <li>• Clicking on the add product button opens a form for to input the required fields (name, price, image, ...).</li> <li>• Clicking on the edit button opens a form containing original data and admin selects a field to change its value.</li> </ul>
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Pop up messages when successful and failure messages.</li> <li>• Product listings display is updated on the platform in case of successful addition/edit.</li> </ul>
<b>Destination:</b> Platform product pages, visible to customers.
<b>Action:</b> <ul style="list-style-type: none"> <li>• Admin clicks on new product icon and a fills in a form including product details (name, price, details, ...)</li> <li>• After product creation, the admin can then edit specific attributes in the product by selecting edit button</li> </ul>
<b>Requirements:</b> <ul style="list-style-type: none"> <li>• Access to product information and availability in the database.</li> <li>• Real-time updates for the product creation and modification.</li> </ul>
<b>Pre-condition:</b> User has access to the product listing interface (i.e. user is an admin)




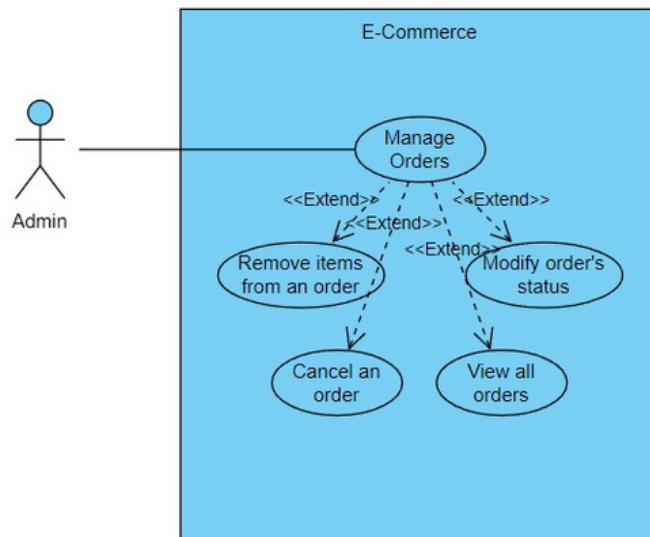
<b>Post-condition:</b> None.
<b>Side effects:</b> <ul style="list-style-type: none"> <li>• server side: new product is added to database or product details are edited in database</li> <li>• User interface: new product is added in products page or product details are modified visible for customers</li> </ul>

Dashboard (Admin Requirement)
<b>Function:</b> Facilitates management and monitoring of orders
<b>Description:</b> <ul style="list-style-type: none"> <li>• Display a list of orders and their respective statuses (in progress, cancelled or shipped).</li> <li>• View information of customers making the orders</li> <li>• The dashboard includes: <ul style="list-style-type: none"> <li>◦ A button in the admin's menu to access the dashboard.</li> <li>◦ The ability to select a specific order to update or cancel.</li> </ul> </li> </ul>
<b>Inputs:</b> Clicking the dashboard button
<b>Source:</b> The dashboard button lies in the home page
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Display of the order management dashboard.</li> <li>• Confirmation of order update or cancellation.</li> </ul>
<b>Destination:</b> <ul style="list-style-type: none"> <li>• The order listings are displayed on the admin's screen in the dashboard page.</li> </ul>
<b>Action:</b> <ul style="list-style-type: none"> <li>• Upon clicking the dashboard button, a request is made to retrieve and display the orders list.</li> <li>• The vendor previews the order statuses on the dashboard.</li> <li>• The vendor selects an order and chooses to update or cancel it.</li> <li>• A confirmation message is shown to the vendor for successful or failed update/cancellation.</li> </ul>
<b>Requirements:</b> user token, a click on the update personal info button.
<b>Pre-condition:</b> Admin is authenticated and has access to the dashboard.
<b>Post-condition:</b> None.
<b>Side effects:</b> updated order status is sent to backend, deleted orders are removed from database

## Diagrams:

### Dashboard Use Case Diagram:

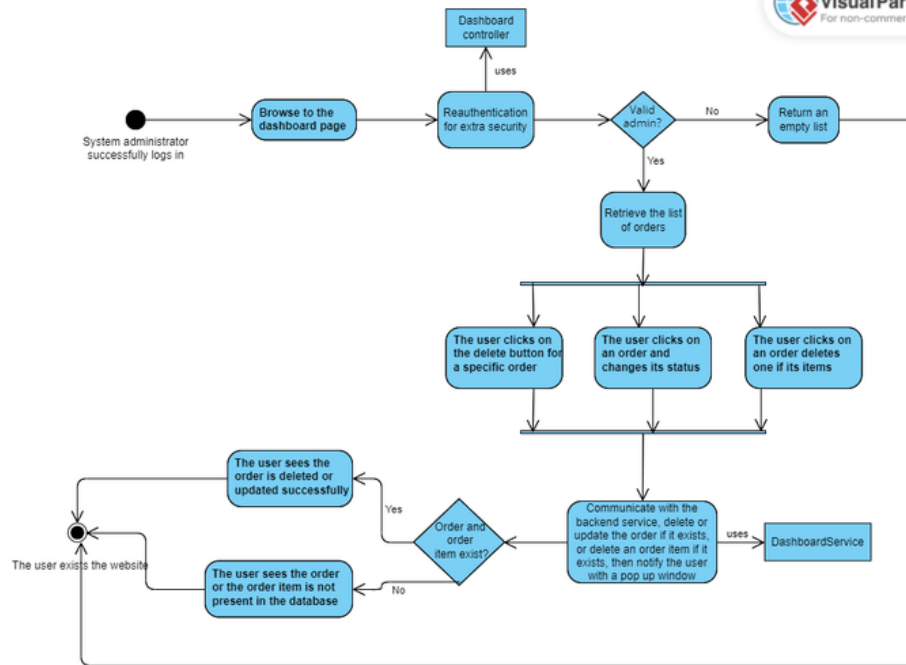
 [Dashboard usecase.pdf](#)



The system administrator is given the ability to manage the registered orders through viewing, modifying status (pending, shipped, delivered), deleting orders, or deleting order items. This is provided through a friendly user interface that allows the administrator to do these tasks easily.

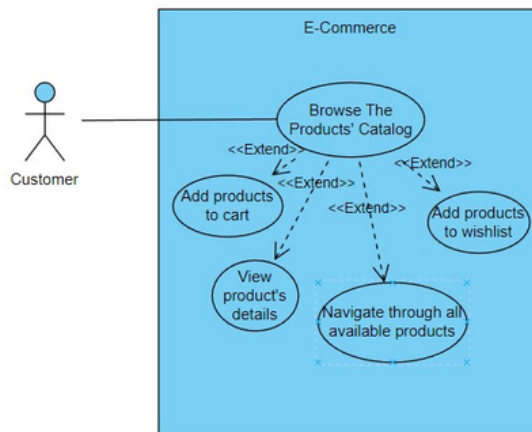
#### Dashboard Activity Diagram:

 [Dashboard activity diagram.pdf](#)



## Product Catalog Use Case Diagram:

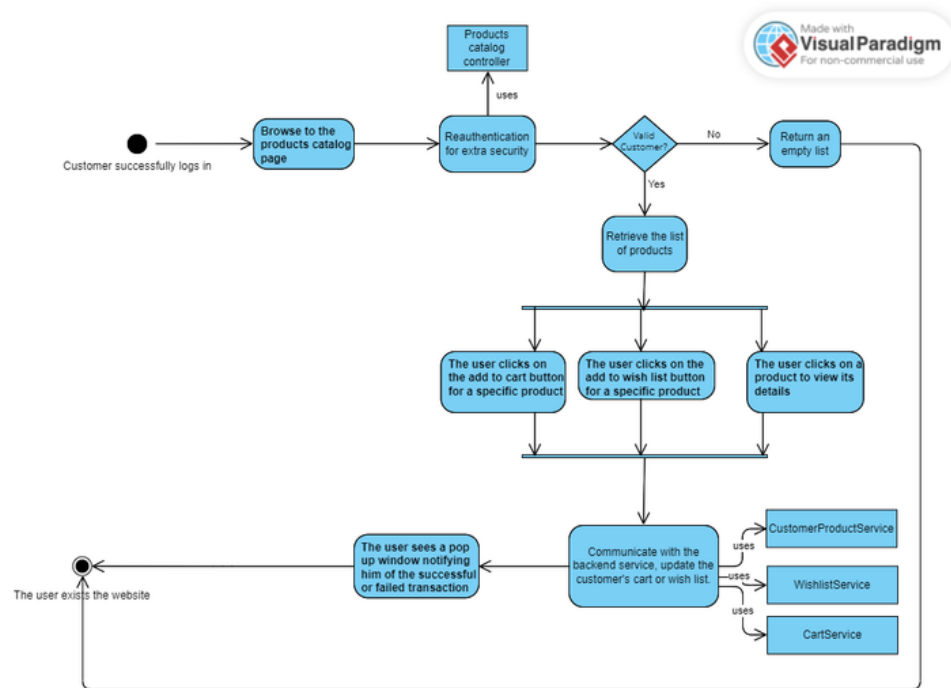
[Customer products usecase.pdf](#)



The system customer is given the ability to browse the products' catalog through a friendly interface that allows the customer to do many activities, such as adding products to a cart and checking them out, adding products to a wish list, viewing product's details, and navigating through a paginated list of products to have a decent online shopping experience.

## Product Catalog Activity Diagram:

[Customer Product Catalog Activity Diagram.pdf](#)



## Customer's Wish list Use Case Diagram:

WishlistUseCase.png



**1. Navigate to my wishlist:** As a user, I want the navigation to and from the Wishlist interface to be intuitive. This ensures that I can easily manage and review my selected products without interrupting my overall shopping experience.

**2. Add a product to my Wishlist:** By clicking on the white heart icon associated with each product. Upon clicking, the heart icon transforms to red, indicating the successful addition of the product to my Wishlist.

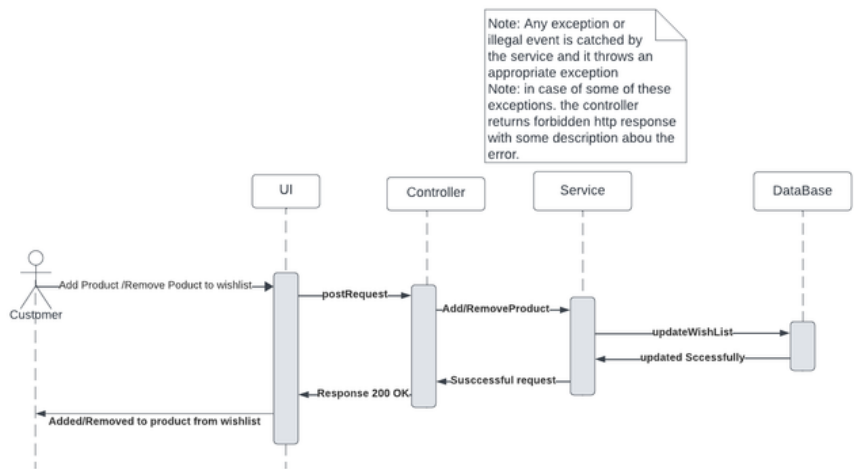
**3. Remove product from wishlist:** while viewing my Wishlist, I want the ability to remove a product by clicking a 'Delete' button represented by a garbage pin icon. Clicking this button should promptly remove the selected product from my Wishlist.

**4. Access Wishlist history:** As a user, I want the ability to click on the heart icon in the top bar, redirecting me to a dedicated web page displaying a comprehensive overview of the products in my Wishlist. This page should include essential details such as product image, name, description, and price.

**5. Add Product from Wishlist to Cart:** As a user, while viewing my Wishlist, I want the ability to seamlessly transition a product to my shopping cart. This can be achieved by clicking an 'Add to Cart' button adorned with a cart icon next to each product in my Wishlist.

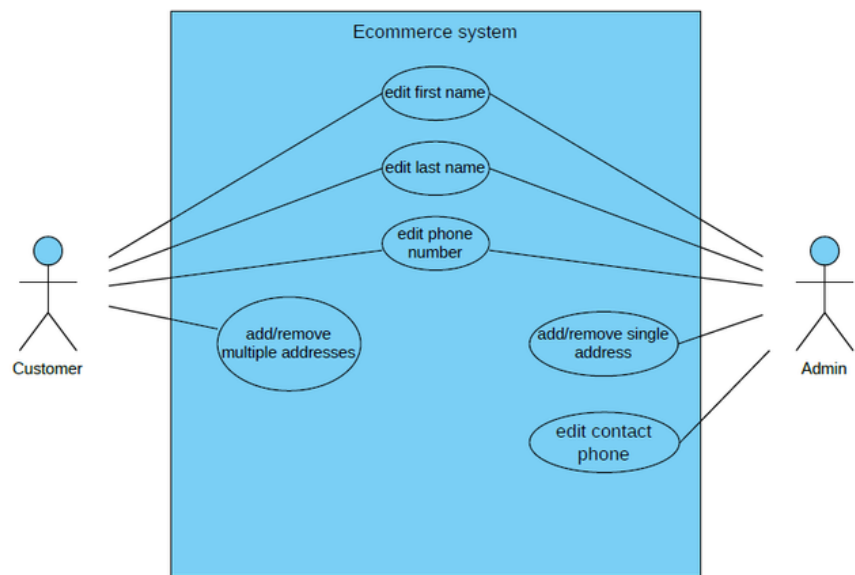
Customer Wishlist Sequence Diagram:

[WishlistSequence \(2\).png](#)



User Profile Use Case Diagram:

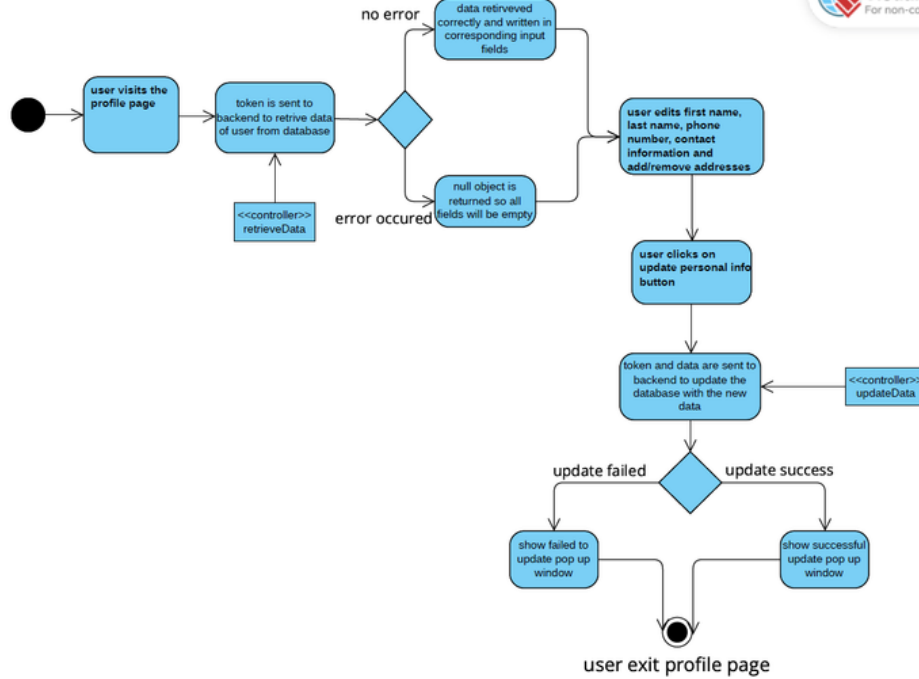
[User Profile Use Case Diagram.pdf](#)



Users are given the ability to modify in some but not all their account information they can change only what is mentioned above (first name, last name, ...) but they can't change their email or password

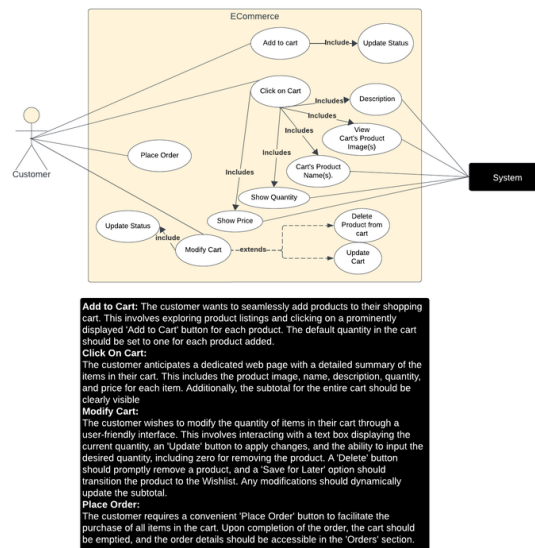
User Profile Activity Diagram:

[User Profile Activity Diagram.pdf](#)



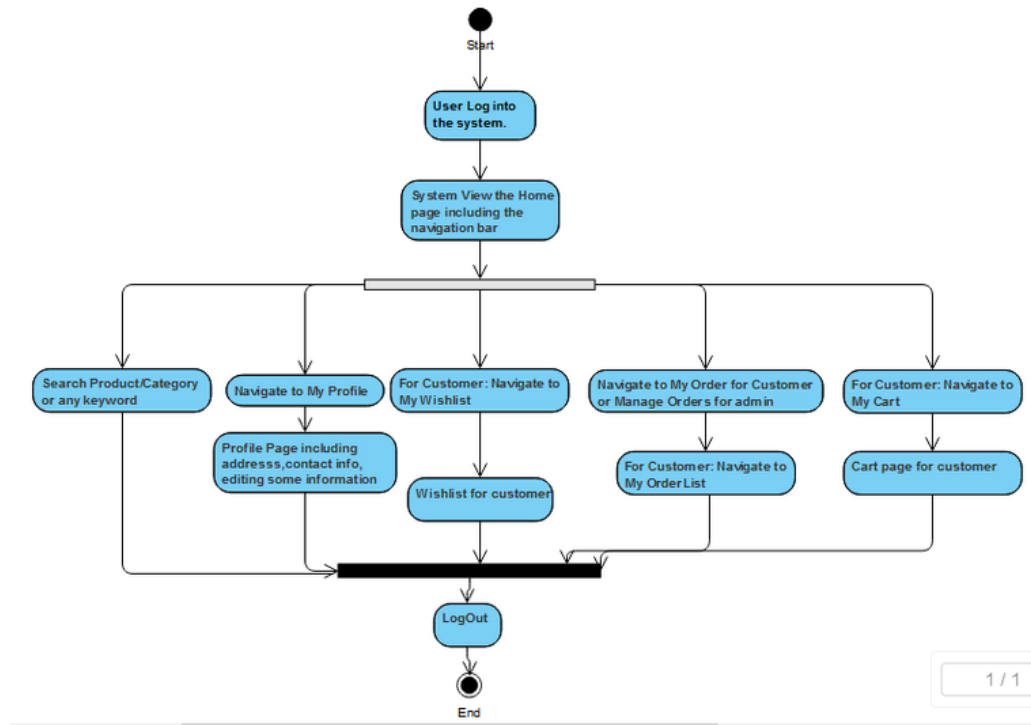
## User Home Page Use Case Diagram:

[UserHPUseCase.png](#)



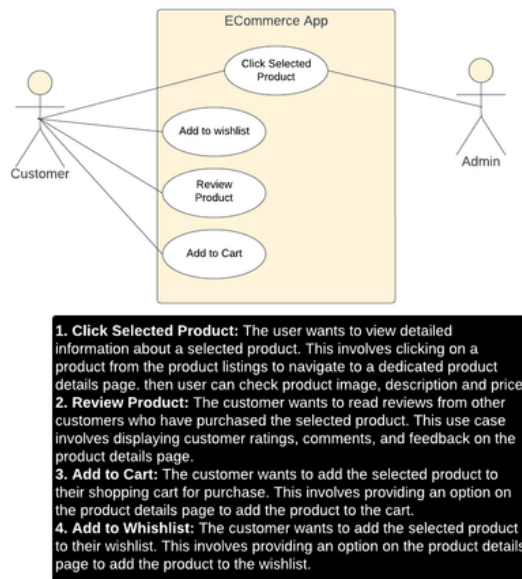
## User Home Page Activity Diagram:

[User home page.png](#)



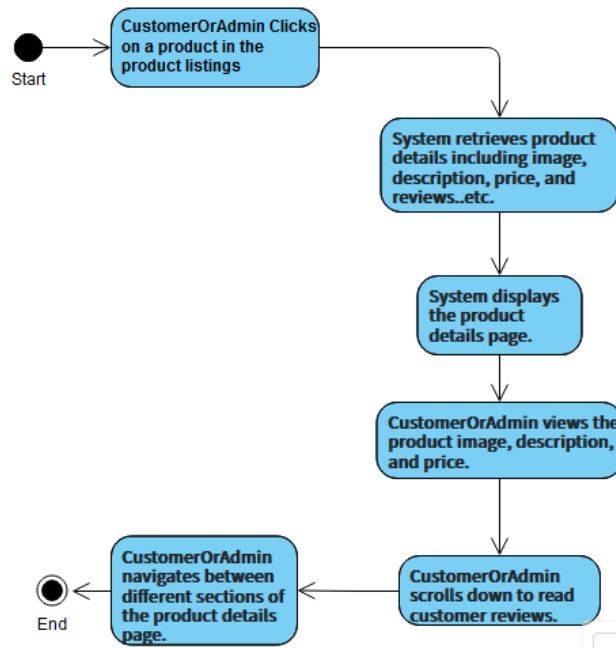
### Viewing Product information Use Case Diagram:

[ViewProductInfo.png](#)



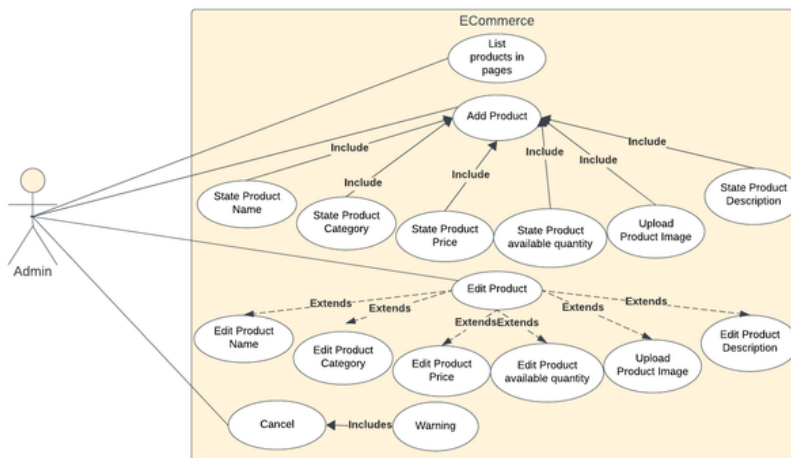
### Viewing Product information Activity Diagram:

[ViewProducts.png](#)



### Admin(Vendor) products list UseCase:

[Admin\(Vendor\) products list UseCase.png](#)

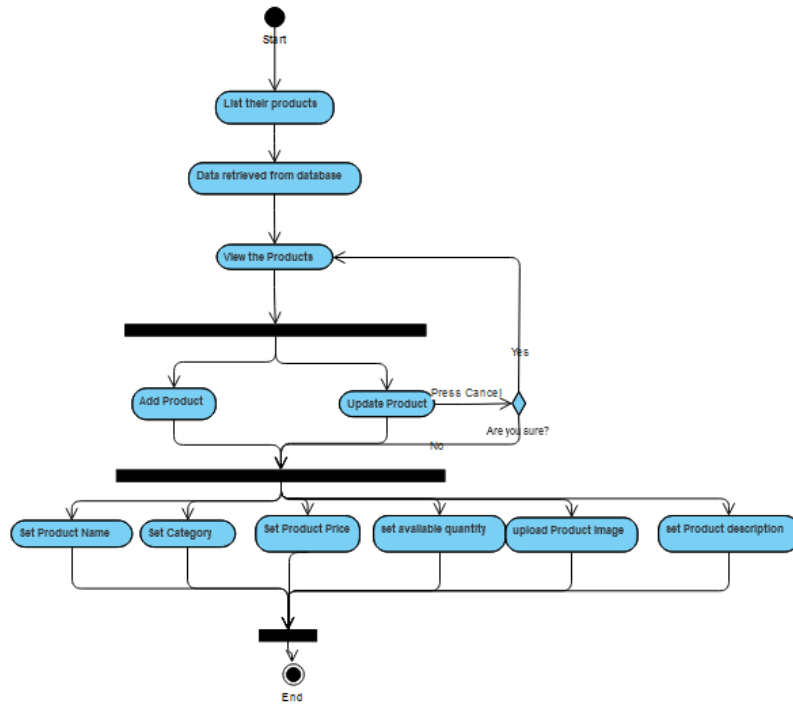


- 1. List Products in Pages:** As a Vendor/Administrator, the user wants to view a paginated list of products available on the platform. This includes a user-friendly presentation of products, organized into pages for easy navigation and discovery by potential customers.
- 2. Add Product:** As a Vendor/Administrator, the user wants to add a new product to the platform by providing essential details. This involves entering the product name, selecting a category, specifying the price, available quantity, uploading an image, and providing a detailed description. The goal is to make the process of adding a new product straightforward and comprehensive.
- 3. Edit Product:** As a Vendor/Administrator, the user wants to edit the details of a listed product. This includes updating information such as the product name, category, price, available quantity, product image, and the detailed product description. The purpose is to allow vendors to keep product information accurate and up-to-date, reflecting any changes in pricing, quantity, or other product details.
- 4. Cancel:** Cancel the update process including Error message to warn him.

### Admin(Vendor) products list Activity Diagram:

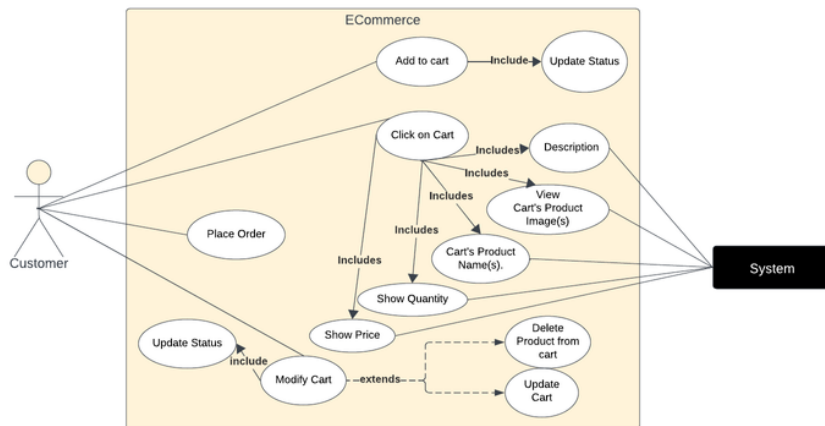
[Activity Diagram for Admin \(Vendor\) Product List Activity Diagram.png](#)





### Customer add to cart Use Case Diagram:

[Cart Use case Diagrams.png](#)



**Add to Cart:** The customer wants to seamlessly add products to their shopping cart. This involves exploring product listings and clicking on a prominently displayed 'Add to Cart' button for each product. The default quantity in the cart should be set to one for each product added.

#### Click On Cart:

The customer anticipates a dedicated web page with a detailed summary of the items in their cart. This includes the product image, name, description, quantity, and price for each item. Additionally, the subtotal for the entire cart should be clearly visible

#### Modify Cart:

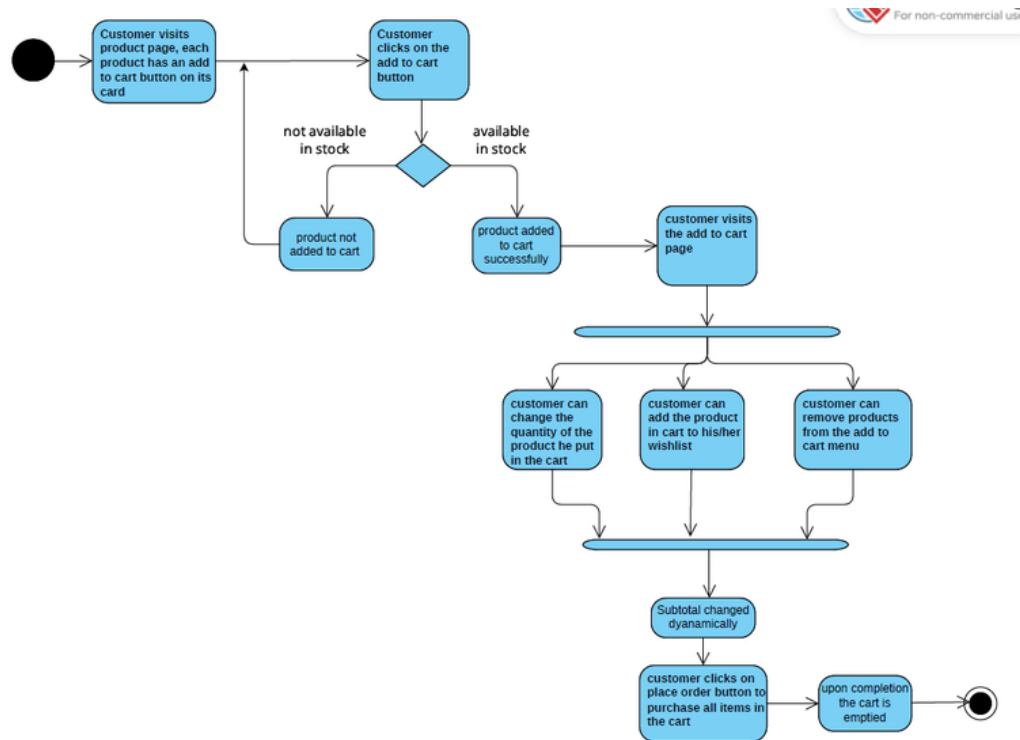
The customer wishes to modify the quantity of items in their cart through a user-friendly interface. This involves interacting with a text box displaying the current quantity, an 'Update' button to apply changes, and the ability to input the desired quantity, including zero for removing the product. A 'Delete' button should promptly remove a product, and a 'Save for Later' option should transition the product to the Wishlist. Any modifications should dynamically update the subtotal.

#### Place Order:

The customer requires a convenient 'Place Order' button to facilitate the purchase of all items in the cart. Upon completion of the order, the cart should be emptied, and the order details should be accessible in the 'Orders' section.

### Customer add to cart Activity Diagram:

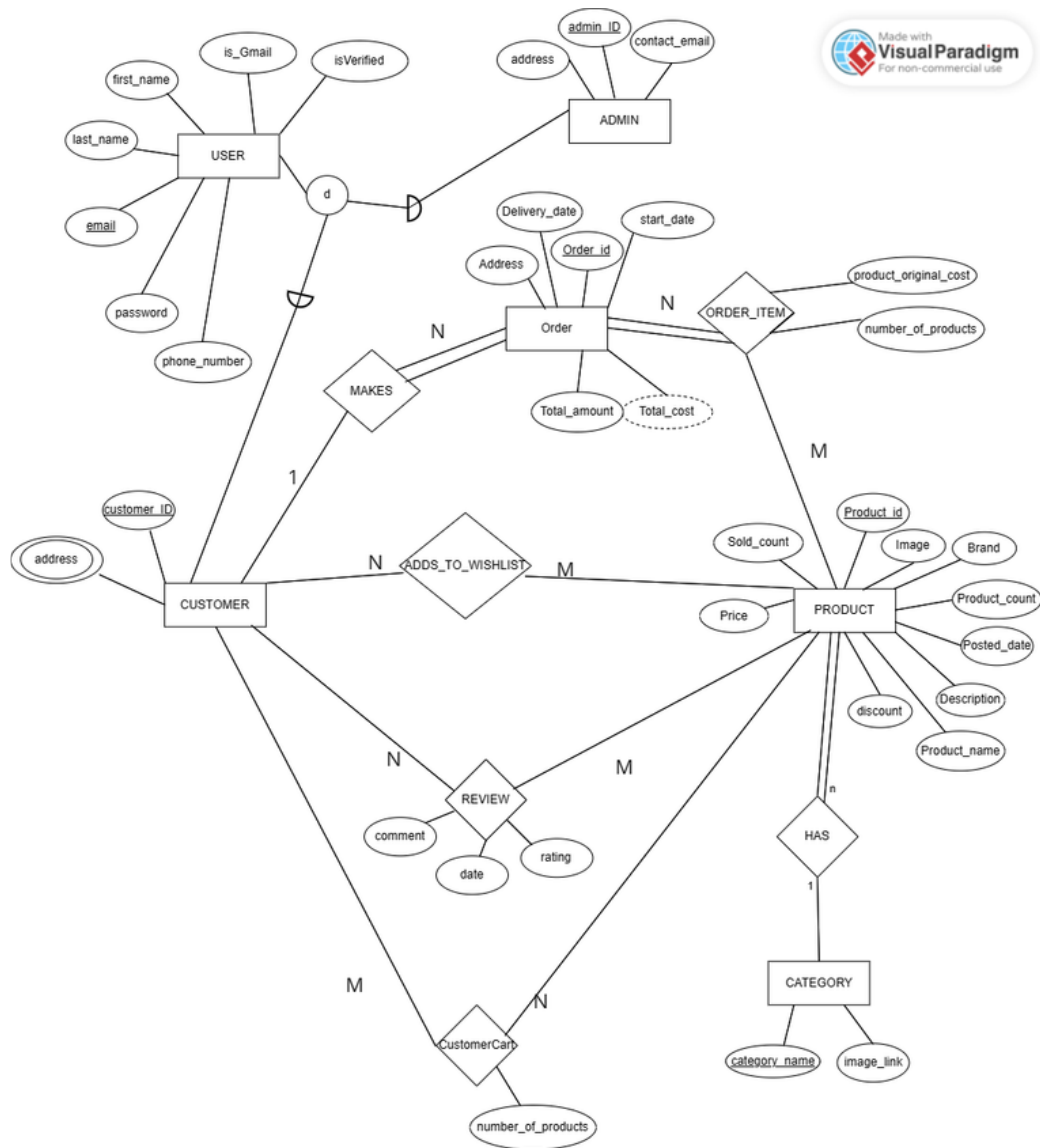
[Add to cart Activity Diagram.pdf](#)



## Design Changes:

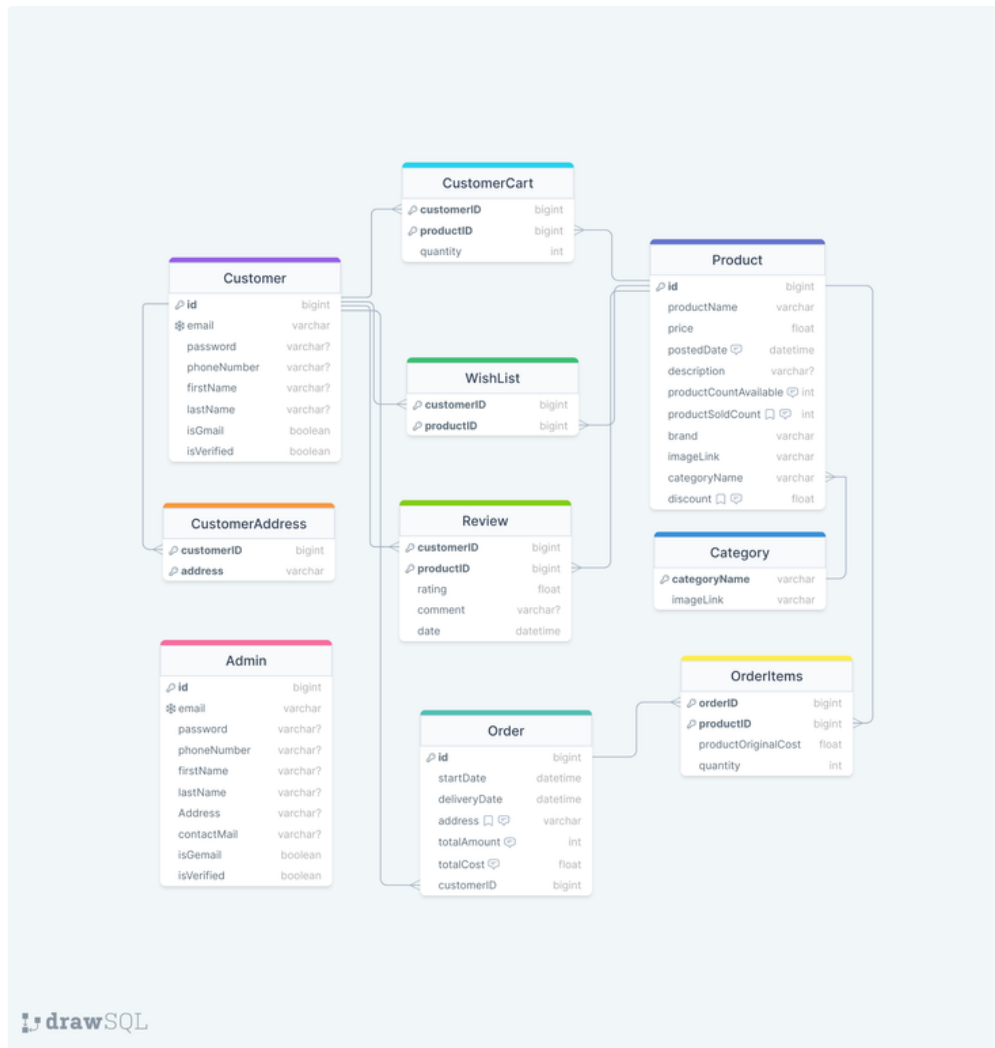
- some modifications in the ER diagram of the database and here is the modified one:

[ERD.pdf](#)

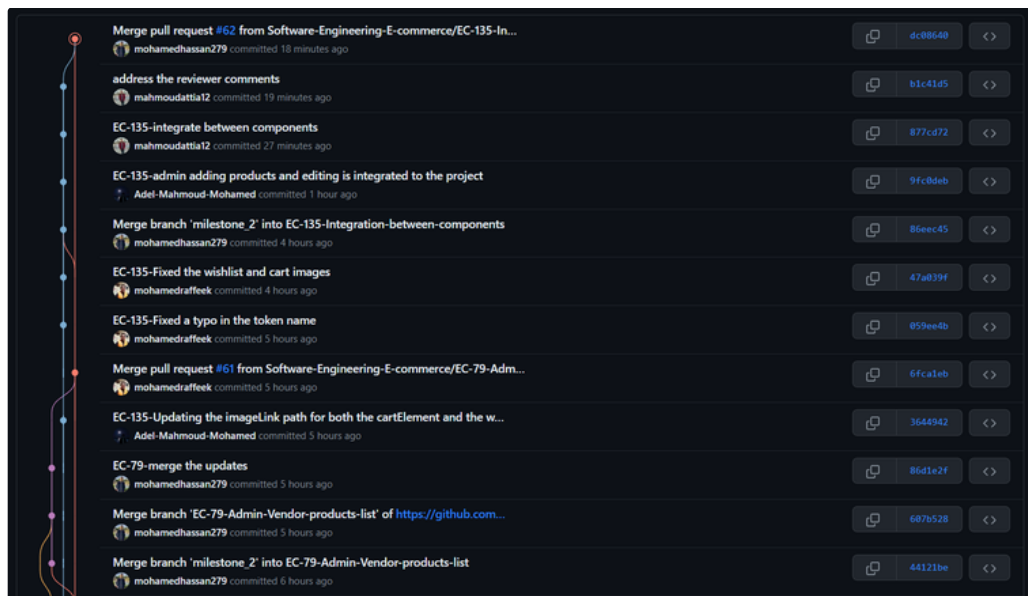


- The relational schema for the ER diagram:

[drawSQL-e-commerce.png](#)



## Git Branching Model:



Coverage Report

Class	
	85.7%
Class	
	100%
	100%
	100%
	100%
	100%
	64.7%
	100%
	100%
	100%
	100%

